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EXAMINER

NGUYEN, THANH NHAN P

ART UNIT	PAPER NUMBER
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2871

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Please find below and/or attached an Office communication concerning this application or proceeding.

8/11

Office Action Summary	Application No. 10/673,242	Applicant(s) SA ET AL.	
	Examiner (Nancy) Thanh-Nhan P. Nguyen	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to Amendment dated 2/15/2006.

Claim Objections

Claim 14 is objected to because of the following informalities: Claim 14 currently read as, "further comprising an over coat film formed beneath the polarizing film contacting the common electrode." It appears it should have read as "further comprising an over coat film formed beneath the polarizing film, wherein the polarizing film contacted the common electrode."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gu et al (US 6,359,672) in view of Jones et al (US 6,417,899).

Regarding claims 1 and 2, Gu et al discloses a liquid crystal display device, comprising: a transparent insulating substrate (19); a gate line (7) and a gate electrode (17) on the transparent insulating substrate; a gate insulating film (21), an active layer (23), an ohmic contact layer (25), source (15) and drain (13) electrodes, and a data line (5) on the transparent insulating substrate, the source and drain electrodes disposed at opposing sides of the active layer; a passivation film (33) formed on the transparent

insulating substrate including the source and drain electrodes and the data line; a pixel electrode (3), wherein the pixel electrode include ITO, [see figs. 1 & 4].

Gu et al lacks disclosure of a polarizing film formed on the passivation film to extend over the data line; and a pixel electrode formed on at least the polarizing film.

Jones et al discloses a polarizing film (53); and the pixel electrode (7) formed on at least the polarizing film, [see fig. 2], for the benefit of improving contrast ratios in the display, [see abstract]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have of a polarizing film formed on the passivation film, wherein the passivation formed on the thin film transistor; and a pixel electrode formed on at least the polarizing film for the benefit of improving contrast ratios in the display.

Further, since the pixel electrode (3) overlapped the data line (5), [from Gu et al reference], and the internal polarizing film formed on the passivation film and below the pixel electrode, [from the combination of Gu et al & Jones et al references], it would have been obvious for one ordinary skill in the art to have the internal polarizing film overlapped the data line. In fact, in manufacturing, it will require more steps to pattern the internal polarizing film to avoid of overlapping the data line, and therefore, it will reduce the production.

Claims 3-4 are met the discussion regarding claims 1-2 rejection above.

Claims 5-12 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motomura et al (US 6,646,702) in view of Jones et (US 6,417,899).

Regarding claims 5 and 6, Motomura et al discloses (fig. 2) a liquid crystal display device, comprising:

- a transparent insulating substrate (22)
- a black matrix (28) formed on the transparent insulating substrate
- a color filter layer (27) formed on an upper surface of the black matrix
- a common electrode (30)
- an overcoat film (29) on the color filter

Motomura et al lacks disclosure of a polarizing film formed on the color filter layer.

Jones et al discloses (fig. 2) polarizing film (17) formed on the color filter layer (23, 25, 27); (thus, a common electrode (15) formed on the polarizing film; an overcoat film (19) formed between the color filter layer and the polarizing), for the benefit of minimizing any adverse effects which may be caused by depolarizing effects of color filters and also reducing parallax, [col. 5, lines 18-29]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have a polarizing film formed on the color filter layer for the benefit of minimizing any adverse effects which may be caused by depolarizing effects of color filters and also reducing parallax.

Motomura et al further lacks disclosure of wherein the polarizing film is parallel to the transparent insulating substrate.

As in fig. 2, the polarizing film (17) of Jones et al is not parallel to the transparent insulating substrate. However, since the shape of the internal polarizing (17) depends on the shape of the polarizer alignment layer (19), [col. 6, lines 26-37], it would have

been obvious to one ordinary skill in the art to obtain the polarizing film parallel to the transparent insulating substrate when the polarizer alignment layer is parallel to the transparent insulating substrate, and therefore, this limitation does not patentably distinguish the invention.

Regarding claim 7, Motomura et al discloses wherein the common electrode includes ITO, [col. 4, line 27].

Claim 8-10 are met the discussion regarding claims 5-7 rejection above, respectively.

Regarding claim 11, Motomura et al discloses (fig. 2) wherein forming the color filter layer includes sequentially forming red, green, and blue color filter layers.

Regarding claims 12 and 14, Motomura et al discloses (fig. 2) a liquid crystal display device, comprising:

- a thin film transistor substrate (21)
- a color filter substrate (22) having a black matrix (28)
- a liquid crystal material (32) formed between the thin film transistor substrate and the color filter substrate
- a pixel electrode (24) formed on the thin film transistor substrate and a common electrode (30) formed on the color filter substrate, the pixel electrode and the common electrode aligning orientation of liquid crystal molecules of the liquid crystal material

- an overcoat film (29) formed on the color filter

Motomura et al lacks disclosure of a polarizing film contacted the common electrode, and arranged above an overcoat, which formed on the color filter, and wherein the polarizing film is parallel to the transparent insulating substrate.

Jones et al discloses (fig. 2) a polarizing film (17) arranged above an overcoat film (19), which formed on the color filter (23, 25, 27), and contacted the common electrode (15), for the benefit of minimizing any adverse effects which may be caused by depolarizing effects of color filters and also reducing parallax, [col. 5, lines 18-29].

Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have a polarizing film arranged above an overcoat film, which formed on the color filter, and contacted the common electrode, for the benefit of minimizing any adverse effects which may be caused by depolarizing effects of color filters and also reducing parallax.

Further, as in fig. 2, the polarizing film (17) of Jones et al is not parallel to the transparent insulating substrate. However, since the shape of the internal polarizing (17) depends on the shape of the polarizer alignment layer (19), [col. 6, lines 26-37], it would have been obvious to one ordinary skill in the art to obtain the polarizing film parallel to the transparent insulating substrate when the polarizer alignment layer is parallel to the transparent insulating substrate, and therefore, this limitation does not patentably distinguish the invention.

Claims 15 and 17 are basically met the discussion regarding claims 12 and 14 rejection above.

Regarding claim 16, Motomura et al discloses (fig. 2) wherein an upper surface of the overcoat film is flat.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motomura et al in view of Jones et al as discussed above, and further in view of Hosonuma et al (US 4,643,529).

Regarding claim 13, Motomura et al lacks disclosure of the polarizing film includes polyvinyl alcohol.

It was conventional to have polarizing film includes polyvinyl alcohol for the benefit of having good polarizing properties material, as evidenced by Hosonuma et al, [col. 1, lines 22-24]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have polarizing film includes polyvinyl alcohol for the benefit of having good polarizing properties material.

Response to Arguments

Applicant's argument: On the Remarks, filed 2/15/2006, with regard to claims 1-4, lines 11-15, "Applicants respectfully assert that Gu et al is related to an X-ray imaging device and Jones et al is related to a fabricating method of a polarizer... combining the teachings of Jones et al with the teachings of Gu et al would result in formation of a polarizer below the x-ray layer of Gu et al, thereby rendering the device Gu et al inoperable for its intended usage."

Examiner's answer: Gu et al is related to an active matrix liquid crystal display or an X-ray imaging device (see the title or the abstract); and Jones et al is related to a liquid crystal display with internal polarizing (see the title or the abstract). Therefore, combining the teachings of Gu et al and the teachings of Jones et al is reasonable, suitable and the device would be operable. Therefore, the rejection of claims 1-4 has been maintained.

Further, applicant's arguments with respect to the rejection(s) of claim(s) 5-17 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the references cited above.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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(Nancy) Thanh-Nhan P Nguyen

Examiner

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TN


ANDREW SCHECHTER
PRIMARY EXAMINER